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(11) EP 0 707 432 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
04.11.1998 Bulletin 1998/45

(51) Int Cl.⁶: H04Q 11/04, H04L 12/44

(43) Date of publication A2:
17.04.1996 Bulletin 1996/16

(21) Application number: 95307026.5

(22) Date of filing: 03.10.1995

(84) Designated Contracting States:
DE FR GB

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(30) Priority: 14.10.1994 US 323184

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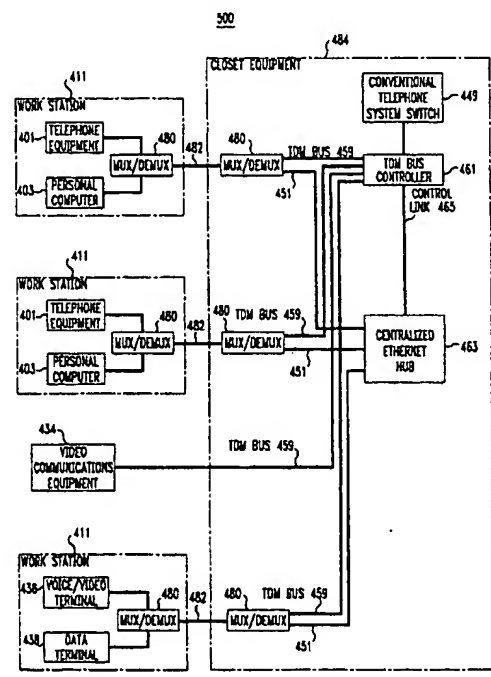
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(54) Communication system topology providing dynamic allocation of B-channels

(57) Communications systems and methods are directed to a novel communications platform which employs a TDM bus, a TDM bus controller, a passive Ethernet bus, and a centralized Ethernet hub to provide for the communication of data, voice, and/or video signals among a plurality of endpoint devices. The TDM bus controller provides a plurality of B-Channels on the TDM bus. The centralized Ethernet hub is coupled to the TDM bus controller via a control link. Each endpoint device is connected to at least one of the passive Ethernet bus and the TDM bus. The centralized Ethernet hub operates over the passive Ethernet bus to dynamically allocate one or more individual B-Channels of a single B-Channel set amongst a group of endpoint devices, such as telephone equipment, video communications equipment, processors, and/or computing devices. The centralized Ethernet hub provides a logical control channel to each endpoint device for call establishment. Each endpoint device is coupled to the logical control channel over at least one of a first path comprising the passive Ethernet bus and a second path comprising the TDM bus, the TDM bus controller, and the control link. The logical control channel executes B-channel seizure algorithms for establishment of communications to and from selected endpoint devices.

FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 95 30 7026

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.8)
X	US 5 355 375 A (CHRISTENSEN GARY S) 11 October 1994 * column 7, line 14 - line 26; figures 1,2 *	1	H04Q11/04 H04L12/44
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A	KANNAN B ET AL: "A PROTOCOL FOR WDM STAR COUPLER NETWORKS" PROCEEDINGS OF THE CONFERENCE ON COMPUTER COMMUNICATIONS (INFOCOM), TORONTO, JUNE 12 - 16, 1994, vol. 3, 12 June 1994, pages 1536-1543, XP000496620 INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS * abstract *	1,2,5-7, 10,13,14	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 14 September 1998	Examiner Staessen, B
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document</p> <p>T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document</p>			

EPO FORM 1503 03/92 (P4/C201)



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EUROPEAN SEARCH REPORT

Application Number
EP 95 30 7026

DOCUMENTS CONSIDERED TO BE RELEVANT			
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A	CHLAMTAC I ET AL: "LAN-HUB" COMPUTER COMMUNICATIONS REVIEW, vol. 17, no. 5, 11 August 1987, pages 369-380, XP000005073 * abstract * -----	1,2,5-7, 10,13,14	
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Place of search THE HAGUE		Date of completion of the search 14 September 1998	Examiner Staessen, B
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EPO FORM 1503 03.82 (P0401)